

I CLAIM:

- 1) A method of shaping optical storage devices (OSD) comprising placing an OSD between a die set having a male die and female die corresponding to a desired shape and advancing and retracting the die set so as to die-cut the OSD to the desired shape to form a shaped OSD.
- 2) The method as in claim 1 wherein the male die includes a central pin for alignment of the OSD on the male die.
- 3) The method as in claim 1 wherein the female die includes an elevated cutting edge.
- 4) The method as in claim 1 wherein the tolerance between the male and female die is between 1 and 10 thousandths of an inch.
- 5) The method as in claim 1 wherein the male and female die are advanced in an out-of-plane orientation such that the male and female die engage from one side to an opposite side with respect to each other.
- 6) The method as in claim 1 wherein the female die has a three dimensional cutting surface and wherein the female die is advanced with respect to the male die from one or more first contact points defined as the point of first overlap between the male and female die.
- 7) The method as in claim 6 wherein the one or more first contact points are at the greatest radial position of the desired shape.
- 8) The method as in claim 1 wherein the female die has a thickness enabling a shaped OSD to be removed from the upper surface of the male die when the female die is fully advanced over the male die.
- 9) The method as in claim 1 wherein the female die includes a system for biasing a shaped OSD against the male die as the female die is withdrawn from the male die.

- 10) The method as in claim 1 wherein the cycle time is 1 cycle per second.
- 11) The method as in claim 1 further comprising the step of sealing the outer edge of the shaped OSD with a sealing compound.
- 12) The method as in claim 11 wherein the sealing compound is selected from any one of or a combination of a paint, lacquer or an ultraviolet light curing acrylic ester.
- 13) The method as in claim 11 wherein the sealing compound is applied by brushing, spraying, rolling or hollow tube application.
- 14) A shaped OSD prepared by a die-cutting process as in claim 1.
- 15) A die set for shaping optical storage devices comprising:
a male die having a flat upper surface corresponding to a desired shape; and
a corresponding female die having a tolerance with the male die of 1-10 thousandths of an inch, the female die having a three dimensional cutting surface adapted for advancement with respect to the male die from one or more first contact points defined as the point of first overlap between the male and female die.
- 16) The die set as in claim 15 wherein the one or more first contact points are at the greatest radial position of the desired shape.